



John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

November 29, 2012

Issuance of Limited Environmental Reviews  
To All Interested Citizens, Organizations, and  
Government Agencies

City of Cincinnati  
Greater Cincinnati Water Works  
Water Main Replacement Projects  
FS390255-0023 - 66th to 70th Street (including Boake Alley, Hasler Lane, Rosewood  
Street, Van Kirk Avenue)  
FS390255-0026 - Pedretti Avenue and Herzog Place

The purpose of this notice is to advise the public that Ohio EPA has reviewed the referenced projects and finds neither a Supplemental Study (SS) nor an Environmental Assessment (EA) is required to implement the projects as discussed in the attached Limited Environmental Review (LER).

The proposed projects involve replacing deteriorated cast iron water mains in parts of the distribution system. The LER was completed for the projects as they will not individually, cumulatively over time, or in conjunction with other Federal, State, local, or private actions have a significant effect on the quality of the human environment. Consequently, a Finding of No Significant Impact is being issued for these projects.

The Water Supply Revolving Loan Account program requires the inclusion of environmental factors in the decision-making process for project approval. Ohio EPA has done this by incorporating a detailed analysis of the environmental effects of the proposed actions in its review and approval process. Environmental information was developed as part of the project general plan, and through the plan review process. Subsequent to the review, this Agency has found that the proposed actions do not require the preparation of either an EA or an SS.

Our environmental review concluded that because the proposed projects are limited in scope and meet all applicable criteria, a Limited Environmental Review is warranted. Specifically, the projects:

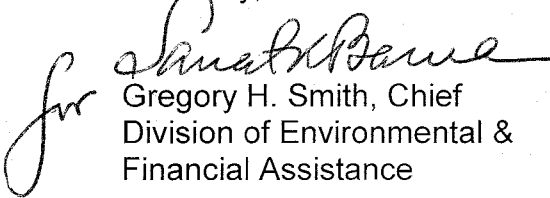
- have no significant adverse environmental effect,
- have no effect on high value environmental resources,
- do not require extensive specific impact mitigation,

- are clearly cost-effective,
- are not controversial actions, and
- will not provide capacity to serve populations substantially greater than the existing populations.

The LER presents additional information on the proposed projects, their costs and the basis for our decision. Further information can be obtained by calling or writing the contact person listed on the back of the LER.

Upon issuance of this determination, loan awards may proceed without being subject to further environmental review or public comment, unless information is provided which determines that environmental conditions on a proposed project have changed significantly.

Sincerely,

for  
Gregory H. Smith, Chief  
Division of Environmental &  
Financial Assistance

Attachment

GHS/jrj

## **LIMITED ENVIRONMENTAL REVIEW**

### **A. Project Identification**

Name: City of Cincinnati  
Greater Cincinnati Water Works (GCWW)  
Water Main Replacement Projects

1. WSRLA No. FS390255-0023 - 66th to 70th Street (including Boake Alley, Hasler Lane, Rosewood Street, Van Kirk Avenue)
2. WSRLA No. FS390255-0026 - Pedretti Avenue and Herzog Place

Address: Carel Vandermeiden, GCWW Chief Engineer  
4747 Spring Grove Avenue  
Cincinnati, Ohio 45232

### **B. Background of Projects and Existing Need**

The City of Cincinnati GCWW has applied to Ohio EPA's Water Supply Revolving Loan Account (WSRLA) for low-interest financing of two proposed projects involving the replacement of water lines within the GCWW service area. This document summarizes Ohio EPA's environmental review of the above listed proposed water main replacement projects.

GCWW provides about 136 million gallons (MG) per day through approximately 3,100 miles of water mains to most of Hamilton County and parts of Butler and Warren counties in Ohio, and to Boone County in Kentucky. GCWW supplies water from two sources. The Miller Treatment Plant treats surface water from the Ohio River, and the Bolton Treatment Plant treats ground water from wells in the Great Miami Aquifer in southern Butler County. Water from the Miller and Bolton treatment plants is delivered to customers in an open distribution system, mixing water from both sources in the water mains.

These projects are part of GCWW's ongoing water main replacement program to proactively address the older water mains in the distribution system. The proposed projects will replace a number of older, higher maintenance, cast iron water mains in the GCWW distribution system, some of which date back to the early 1900s. There are 1,857 miles of cast iron water mains in the system. GCWW estimates that it loses 11.5% of the treated water it produces through cracks in the cast iron mains. GCWW calculations show that replacing leaking mains could reduce water system demand by about 2.2 MG/mile/year.

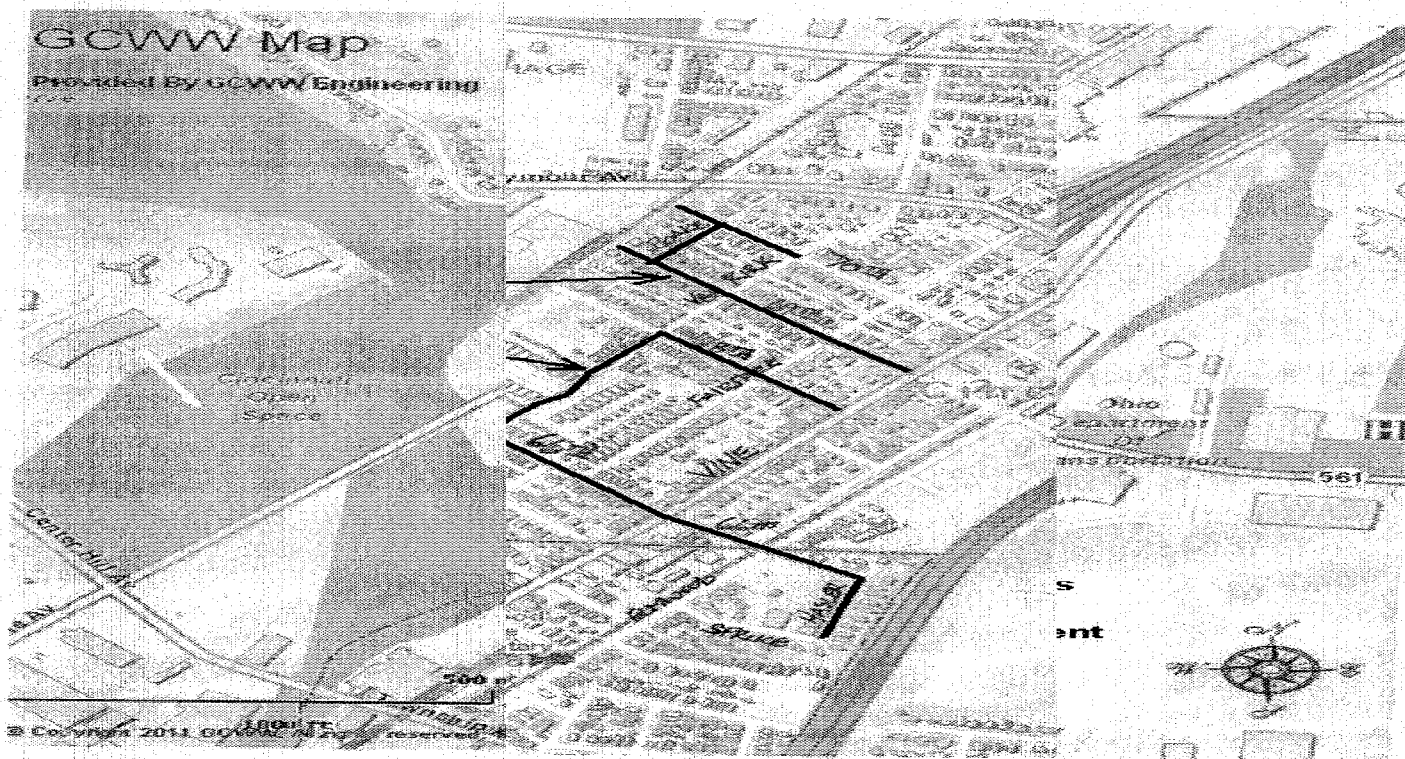
### C. Project Descriptions

#### **66th to 70th Street Area Water Main Replacement Project:**

The 66th to 70th Street (including Boake Alley, Hasler Lane, Rosewood Street, Van Kirk Avenue) water main replacement project replaces a number of older water mains in the GCWW distribution system in the north central part of Cincinnati (see map below). All of these water mains date back to the 1920s. The existing 6-inch diameter water distribution mains are being replaced with new 8-inch diameter distribution mains, which will be installed in existing road rights-of-way. This construction project includes replacement of approximately 6,974 feet of water main. The streets and lengths of water main to be replaced are:

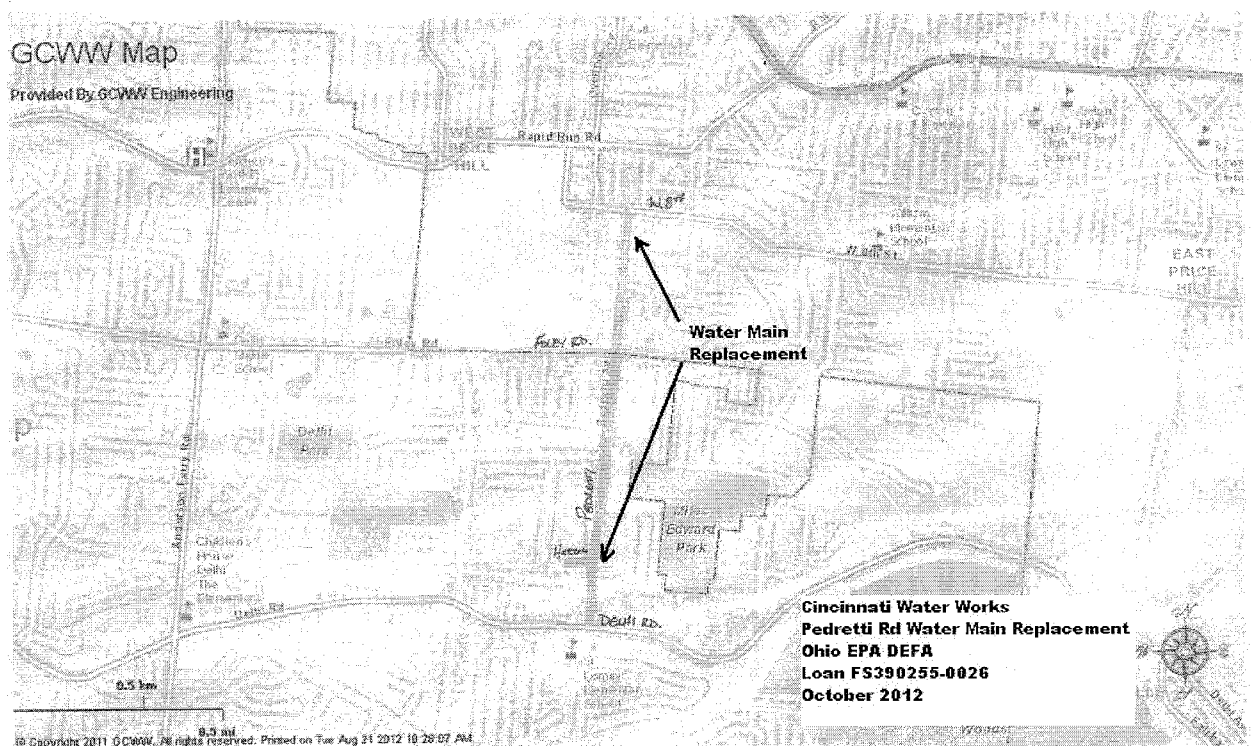
66th Street (from Hasler Lane, NW to Rosewood Street) - 2,057 feet  
68th Street (from Vine Street, NW to Van Kirk Avenue) - 845 feet  
69th Street (from Vine Street to NW terminus) - 1,350 feet

70th Street (from Boake Alley to NW terminus)  
Boake Alley (NE to 70th Street)  
Hasler Lane (NE to 66th Street)  
Rosewood Street (NE to 66th Street)  
Van Kirk Avenue (NE to 68th Street)



### **Pedretti Avenue and Herzog Place Water Main Replacement Project:**

The Pedretti Avenue and Herzog Place water main replacement project replaces older, cast iron water mains in southwestern Cincinnati (see map below). These water mains date back to the 1920s and 1950s. The existing 12-inch diameter water distribution main in Pedretti Avenue is being replaced with approximately 5,200 feet of new 12-inch main and the existing 6-inch diameter main in Herzog Place will be replaced with approximately 300 feet of new 6-inch main.



In summary, construction of the water main replacements should be straightforward. A trench will be dug in the road rights-of-way, very near the existing waterlines. Installation of the new 12-inch main will require a 2.5-foot wide trench with an average depth of approximately 4.5 feet. The 6-inch and 8-inch replacement mains will require a 2-foot wide trench. The new waterlines will be installed, tested, and connected to the upstream and downstream portions of the existing waterlines that will remain in operation during installation of the new mains. The replaced part of the existing waterlines will be abandoned in-place. Since the new waterlines will be installed under the pavement, no significant adverse impact is expected.

#### **D. Estimated Project Costs**

The project costs are expected to be funded with low-interest loans through the WSRLA program administered by Ohio EPA. GCWW meets the program criteria for a non-disadvantaged system with affordability points, qualifying it for a 2% interest rate for up to 20 years. By using WSRLA funding instead of the 3.69% market rate funding, GWCC will save on interest costs. The estimated total project costs and interest savings are listed in the following table.

<b>Project Name</b>	<b>Estimated Total Cost</b>	<b>Interest Savings with WSRLA Funding</b>
60th to 70th Street Area	\$1,473,500	\$301,220
Pedretti Avenue and Herzog Place	\$1,450,300	\$296,660

The WSRLA loans will be repaid through revenue generated by GCWW's user charge system. The current user charge rates have been in effect since January 1, 2012. Based on the current user charge rates, the average residential customer within the City of Cincinnati, using 2,807 cubic feet (28.07 CCF) of water per quarter (7,000 gallons per month), would pay a quarterly bill of \$72.77 (\$2.13 per CCF used and \$12.98/quarter service charge). GCWW does not anticipate that the proposed projects will necessitate an increase in the user charge rates. This quarterly rate translates to an average annual (inside Cincinnati) residential expenditure of \$291.08 for finished water. Service areas outside Cincinnati will have different user charges. Information provided in the loan application indicates that a rate increase of 7% per year is planned for the next two years. The GCWW website ([www.cincinnati-oh.gov](http://www.cincinnati-oh.gov)) has more information on water service charges.

Cincinnati's annual median household income (MHI) is \$33,855. The average annual user charge of \$291.08 within the city is 0.9 % of the median household income. This is well below the Ohio average of 1.2% (the 2010 state average annual water use charge as a percentage of the 2010 Ohio MHI).

Cincinnati's projected average annual user cost is within the range of other cities in the region, namely: Fairfield (population 42,510) - \$199, Dayton (population 141,527) - \$353, and Middletown (population 48,694) - \$335. The City of Cincinnati's population is 378,259.

#### **E. Project Schedule**

It is expected that the WSRLA loans for the two water main replacement projects will be awarded in December 2012. Construction schedules for the projects are listed below.

<u>Project</u>	<u>Start</u>	<u>Duration</u>
66th to 70th Street Area	12/1/12	7 months
Pedretti Avenue and Herzog Place	12/1/12	6 months

**F. Public Notification**

GCWW is proactive in terms of its public awareness for waterline replacement projects. GCWW maintains a very informative website including council meeting videos, which is updated regularly to notify the public of projects and other current news. The Annual Consumer Confidence Report notifies the public of the progress that GCWW is making in replacing its old, inadequate infrastructure.

In addition, GCWW will publish notice of the availability of, and provide this Limited Environmental Review (LER) and Finding of No Significant Impact (FNSI) decision to interested parties for public comment. GCWW will place the LER and FNSI on its website (<http://www.cincinnati-oh.gov/water/>). Ohio EPA will also post these documents on its website (<http://epa.ohio.gov/defa/Home.aspx>) under the "WPCLF" tab in the "Documents Available for Review" list. Additional information supporting the FNSI and LER is available upon request from the Ohio EPA address at the end of this document.

**G. Planning Information**

Ohio EPA's Division of Environmental and Financial Assistance has reviewed and approved the facilities planning for the projects. The Ohio Historic Preservation Office reviewed the proposed projects and concurred with Ohio EPA's determination of "no historic properties affected" because no historically significant resources are present in the Area of Potential Effect (the trench excavation will be in previously disturbed rights-of-way). Since the water main replacements will be entirely in paved rights-of-way in fully developed areas, no review by the Ohio Department of Natural Resources was necessary. Ohio EPA is not aware of any opposition to the project.

**H. Conclusion**

The proposed water main replacement projects meet Ohio EPA's general criteria for a Limited Environmental Review, being actions in portions of an already existing water system that are designed to replace the existing waterlines. Furthermore, the projects meet the following specific qualifying criteria for a LER:

- Have no significant adverse environmental effect; have no effect on high value environmental resources; and therefore do not require extensive, specific impact mitigation - No significant environmental resources will be affected. The waterline will be installed by excavation of a trench in the paved street, so land disturbance due to installation is not expected. The project area is entirely developed and there are no significant water resources or critical habitat in the immediate area. The only anticipated impacts due to the project would be short-term. Traffic disruption, noise and dust will be addressed by following typical mitigative measures identified in the project plans. Basic construction best management practices will be followed during waterline installation, and excavated soil will be immediately disposed in a manner that will not impact surface waters, floodplains, or wetlands.
- Are cost-effective – Replacement of the old cast iron waterlines will result in improved water quality, less service disruptions and reduced water losses. As a result, water demand will be decreased, which will reduce treatment costs. The proposed project will utilize materials superior to those used when the lines were initially installed 60 to 90 years ago.
- Are not controversial actions – Replacement of the water mains will not increase user charges or create significant adverse impacts, and there is no known opposition to the projects;
- Will not provide capacity to serve populations substantially greater than the existing populations; do not create a new, or relocate an existing, discharge to surface or ground waters; and will not result in substantial increases in the volume of discharge or the loading of pollutants from an existing source or from new facilities to receiving waters - The proposed projects consist of replacing deteriorated waterlines in fully developed areas, so the immediate service area demand will remain about the same. No discharge of pollutants is involved. Therefore, the projects will not result in any increase in service, or discharge or loading of pollutants to receiving waters.
- Will not create a new source of water withdrawals from either surface or ground waters, or significantly increase the amount of water withdrawn from existing water sources - The proposed projects are limited to the replacement of deteriorated waterlines with lines of similar capacity. The waterline replacements will enable the City to continue to provide a safe and reliable water supply. The projects may actually reduce the rate of water withdrawals by decreasing leakage losses in the distribution system.

The planning activities for the projects have identified no potentially significant short-term or long-term adverse impacts on the quality of the human environment



or on sensitive resources (water bodies, floodplains, wetlands, riparian areas, woodlands, prime or unique agricultural lands, aquifer recharge zones, archaeologically or historically significant sites, or threatened or endangered species). Implementation of appropriate construction mitigation measures is required by the contract specifications, and construction activity will be limited to the paved streets. For the preceding reasons, Ohio EPA has made a Finding of No Significant Impact to the human or natural environments for these two projects. The project will provide improved water service that is safe and reliable for residents and businesses, and reduce treatment costs by reducing water loss due to leakage from old cast iron water mains.

**I. For further information, please contact:**

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